

19990211.qrp v01_n364.qrl.990211

Date: Thu, 11 Feb 1999 19:04:28 EST

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 1364

QRP-L Digest 1364

Topics covered in this issue include:

- 1) [32713] Re: Norcal 20
by Larry Cahoon <wd3p@juno.com>
- 2) [32714] Wanted to borrow: NC40A and NC20
by Allan G Taylor <k7gt@arrl.net>
- 3) [32715] Vectronics
by Fred J Kalt <w2xn@juno.com>
- 4) [32716] 7040 area may be crowded this weekend
by Dave Sjolin <sjolin@swbell.net>
- 5) [32717] Re: Audible VSWR indicator?
by w4pj@w4bkx.ampr.org
- 6) [32718] Re: helping hams
by Peter Larsen <larsenp@cadvision.com>
- 7) [32719] Re; Mechanical Etching tools
by "Roger A. McCarty" <rmccarty@earthlink.net>
- 8) [32720] Re: helping hams
by Ron Stark <ku7y@dri.edu>
- 9) [32721] Re: Removing rosin flux, denatured alcohol
by Mike Mullins <mmullins@mastnet.net>
- 10) [32722] RE: Removing rosin flux-NOT!!!
by "Ed Tanton" <n4xy@mindspring.com>
- 11) [32723] Thanks for the help
by Peter James <mrpj@mindspring.com>
- 12) [32724] WE6W hrd on AR QRP net thru s-7 line buzz. Noise blanker ideas?
by S LYON <sslyon@worldnet.att.net>
- 13) [32725] Converting a QRP kit to surface mount components
by sda <sda@bellsouth.net>
- 14) [32726] RE:Vectronics
by Niels Jensen Kristjansson <nkristja@cadvision.com>
- 15) [32727] Preperation Before Building
by "Bruce Pea" <pea@pdnt.com>
- 16) [32728] soldering, flux, cleaning
by Roger Traylor <traylor@ECE.ORST.EDU>
- 17) [32729] Cleaning after soldering
by Jeff Johns <jeffj@scott.net>
- 18) [32730] Water Soluble Flux Solder
by "Ed Tanton" <n4xy@mindspring.com>
- 19) [32731] Austin QRP Club Meeting 1999-02-13

- by Glen Reid <k5fx@flash.net>
- 20) [32732] simple superhet
by ntan <ntan@crosslink.net>
- 21) [32733] Minor earthquake hits San Diego
by dhuggard@cts.com (Doug Huggard)
- 22) [32734] Re: Minor earthquake hits San Diego
by Jay Bromley <w5jay@alltel.net>
- 23) [32735] WE6W hrd on AR QRP net thru s-7 line buzz. Noise blanker ideas?
by Ed Loranger <we6w@juno.com>
- 24) [32736] Dan's Kits
by Jim Fielden <fielden@utkux.utcc.utk.edu>
- 25) [32737] Smite on 20 or 15 ?
by Peter De Schrijver <dh2fby@hrz.uni-kassel.de>
- 26) [32738] Re: PA3HBB will be in Calif next week wanna meet up?
by "David Reid" <dareid@Synopsys.COM>
- 27) [32739] Re: Cleaning after soldering
by Dave Marling <dbm@klis.com>
- 28) [32740] Re:Audible SWR indicator..
by ntan <ntan@crosslink.net>
- 29) [32741] K2 is QRV
by RobCap@aol.com
- 30) [32742] Re: Norcal 20
by dave.g0dja@psilink.co.uk (Dave Ackrill)
- 31) [32743] Next UK Foxhunt
by dave.g0dja@psilink.co.uk (Dave Ackrill)
- 32) [32744] Re: (CW) telegraphy and the internet
by dave.g0dja@psilink.co.uk (Dave Ackrill)
- 33) [32745] Re: K2 DX !!!!! PA0IJM
by "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
- 34) [32746] Re: SB-300 CW Filter source Found \!\!\!
by Zack Lau <zlau@arrl.org>
- 35) [32747] Re: Cleaning after soldering
by Ron Stark <ku7y@dri.edu>
- 36) [32748] ElectroMagnetics on 20/20 ??
by Niel Skousen <nskousen@scientech.com>
- 37) [32749] Re: Cleaning after soldering
by W5TB <w5tb@SoftHome.net>
- 38) [32750] LM380, etc. (long)
by Larry East <w1hue@amsat.org>
- 39) [32751] FS NC-20 plus ZM-1
by jim <kw3u@warwick.net>
- 40) [32752] FS/FT: Tokyo Hy-Power HX-240 VHF to HF transverter
by "Caitlyn M. Martin" <cait.martin@ibm.net>
- 41) [32753] Re: SB-300 CW Filter source Found \!\!\!
by HWRM1SS@aol.com
- 42) [32754] Re: QRP Quarterly
by Ron Stark <ku7y@dri.edu>
- 43) [32755] clubs and rags

- by "Joseph Street" <joseph.street@comdev.ca>
- 44) [32756] FOX: Thursday Night AB0G0--last reminder!
by Dave Ek <ekdave@earthlink.net>
- 45) [32757] Re: clubs and rags
by "Bryan Turner" <turnerw@email.uah.edu>
- 46) [32758] Re: Cleaning after soldering
by "Steve Sorrell" <ap036@detroit.freenet.org>
- 47) [32759] Re: (CW) telegraphy and the internet
by dave.g0dja@psilink.co.uk (Dave Ackrill)
- 48) [32760] Re: Cleaning after soldering
by Bruce Kizerian <kizerian@ced.utah.edu>
- 49) [32761] converting to SMT & K6LMN simple superhet
by wctroutfield@west.raytheon.com
- 50) [32762] QRPers' comments on the ZM-1,2 tuners?
by Jeff <fantbb@yahoo.com>
- 51) [32763] Re: clubs and rags
by PDouglas12@aol.com
- 52) [32764] Re: QRP Quarterly
by "Ed Hare, W1RFI" <w1rfi@arrl.net>
- 53) [32765] NorCal 20 Blank Case Status
by ki6ds@dpol.k12.ca.us (Hendricks, Doug)
- 54) [32766] Temp sensing circuit needed.
by Paul Erickson <paule@sfu.ca>
- 55) [32767] RE: Cleaning after soldering
by "Ed Tanton" <n4xy@mindspring.com>
- 56) [32768] AR QRP 40m Net results
by Robsparks@aol.com
- 57) [32769] K2 Practical Performance
by Bob Kelllogg <ae4ic@nr.infi.net>
- 58) [32770] Cleaning boards/flux removal - WOW ;^)
by Bill Cotter <bcotter@pop.uky.edu>
- 59) [32771] Re: Temp sensing circuit needed.
by Paul Harden <pharden@aoc.nrao.edu>
- 60) [32772] (Somewhat off topic) Computer FS/FT for *specific* ham gear
by "Caitlyn M. Martin" <cait.martin@ibm.net>
- 61) [32773] Re: 7040 area may be crowded this weekend
by DNT1@daimlerchrysler.com
- 62) [32774] K2 sighting on 20m
by PDouglas12@aol.com
- 63) [32775] Re: converting to SMT & K6LMN simple superhet
by Bob Kelllogg <ae4ic@nr.infi.net>
- 64) [32776] Re: Cleaning boards/flux removal - WOW ;^)
by <msix@nmia.com>
- 65) [32777] FS: boards for IRC filters
by Paul Erickson <paule@sfu.ca>
- 66) [32778] Re: Cleaning after soldering
by "Phillips Richard" <phillips@msoe.edu>
- 67) [32779] clubs and mags

- by "Joseph Street" <joseph.street@comdev.ca>
- 68) [32780] Re: FYBO: MDmW (WQ3RP)
by Chris Cartwright <ccart@dns.vidtel.com>
- 69) [32781] Re: Cleaning after soldering
by Bill Cotter <bcotter@pop.uky.edu>
- 70) [32782] Elmer2##
by Brad Mugleston <bmug@gwl.com>
- 71) [32783] NC20 L1 toroid question
by Mont Pierce <montp@synacom.com>
- 72) [32784] Offense, and the taking thereof
by "Ed Tanton" <n4xy@mindspring.com>
- 73) [32785] TCI Wireless Modems - more fun!
by Paul Maciel <pmaciel@inow.com>
- 74) [32786] Ohio K-2 On the Air
by SABorns@aol.com
- 75) [32787] Dayton Hamvention 1999 Rooms
by Hank Kohl K8DD <k8dd@contesting.com>
- 76) [32788] Re: Cleaning after soldering
by Michael Neverdosky <MichaelN@cycat.com>
- 77) [32789] How do you work this out?
by RangerSF5@aol.com
- 78) [32790] Light weight paddle
by "Kim Andersen" <ox3fv@greenet.gl>

Date: Wed, 10 Feb 1999 22:21:04 +0000
From: Larry Cahoon <wd3p@juno.com>
To: qrp-l@Lehigh.EDU
Subject: [32713] Re: Norcal 20
Message-ID: <19990211.000137.17846.0.wd3p@juno.com>

On Wed, 10 Feb 99 07:39:23 -0500 Chuck Adams <adams@ticnet.com> writes:

>For those that might be color blind Chris' idea of using
>the meter will work.

>

>This will take some additional time but it would certainly
>be worth it to keep from having to track down a pair
>of resistors in the wrong places.

>

Let me second that - my last step ALWAYS before stuffing the resister in
the hole is to put it on the meter. Prevents errors and saves time like
Chuck says.

73 de Larry.....WD3P

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Wed, 10 Feb 1999 16:08:54 -0800
From: Allan G Taylor <k7gt@arrl.net>
To: qrp-l@lehigh.edu, wsixrgg@crl.com
Subject: [32714] Wanted to borrow: NC40A and NC20
Message-ID: <36C21F96.584B@arrl.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Bob Reggio, W6RGG, has asked that I post a need to borrow either a NC40A or NC20, preferably both, for illustrative purposes at the upcoming Visalia CA DX Convention. This convention is held in early May every spring and is well known on the West coast as a major forum for DXing issues. His intention is to show to that group the sort of rigs that can be had at minimal expense with the intent of getting more foreign amateurs on the air (HF) and hopefully giving out DX contacts. As I am posting here for his benefit, please contact him directly if you are willing to let your STOCK NC40A or NC20 go for a ride to Visalia. Bob lives in the East Bay (Castro Valley) and is the SEC for the East Bay and is a well-known contester and DXpeditioneer. Bob's email address is: wsixrgg@crl.com .

I have also told him about the NorCal club project with 500 NC20s going to DX amateurs and given him over to Doug Hendricks, KI6DS. There seems to be a significant overlap in the interests of NorCal and the group that Bob is representing.

73

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                                     |
                                   /|
                                 /  |
                               | /Z |\
Allan Taylor, PE  K7GT           | /599| \   QRP-L 1016 FISTS 3222
    k7gt@arrl.net           /| /____|__\   ARS 228    10X 69929
operating nr SF/Oakland CA   /_||/____|__\   DXCC 8171/CW 1395/40m
..."QRP, QRO, or barefoot..."... [\-----/
~~~~~
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Date: Wed, 10 Feb 1999 19:24:41 -0500
From: Fred J Kalt <w2xn@juno.com>
To: qrp-l@lehigh.edu
Subject: [32715] Vectronics
Message-ID: <19990210.192441.-737095.1.w2xn@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I just got a complete Vectronics catalog in the mail and noticed some QRP receivers and transmitters kits. The transmitter is crystal controlled, but appears to be a "rubber crystal" for a small section of the band, and 1 watt output. Also includes a T/R switching arrangement to allow hooking up the receiver. Any comments on them would be appreciated. If you respond direct, I will post the summarized comments.

fred w2xn

Date: Wed, 10 Feb 1999 18:38:33 -0600
From: Dave Sjolín <sjolin@swbell.net>
To: Qrp-l Reflector <qrp-l@Lehigh.EDU>
Subject: [32716] 7040 area may be crowded this weekend
Message-ID: <36C22689.C68B855D@swbell.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi:

Many of you saw the posting about the Columbian earthquake and the emergency communications taking place between 7050 and 7100.

Well to add to the congestion, one of the major interenational RTTY contests is this weekend and USA works Europe, Africa and Asia between 7045 and 7035.

I know many of you dont like it but if the rtty seems particulariy prominent around 7040, it is because the rtty testers are seeking to avoid the earthquake relief work.

73 de Dave, N0IT

Date: Wed, 10 Feb 1999 19:37:40 EST
From: w4pj@w4bkx.ampr.org
To: w7ls@blarg.net
Cc: qrp-1@lehigh.edu
Subject: [32717] Re: Audible VSWR indicator?
Message-ID: <49666@w4bkx.ampr.org>

Thanks for the response Jim.
I have been informed that Ten-Tec has a kit similar to a noise bridge that would do the trick. The one you describe also sounds interesting. Also I will need to see QST March '97 - I've been getting a number of helpful responses so-far. I'll wait till you see if you can find the copy from Don Johnson 6AAQ before beginning the project.
The responses keep rolling in.

de Scott / W4PJ

Date: Thu, 11 Feb 1999 01:14:05 +0000
From: Peter Larsen <larsenp@cadvision.com>
To: n1tp@worldnet.att.net
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32718] Re: helping hams
Message-ID: <36C22EDD.50E0BF36@cadvision.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Tom Palmer wrote:

>
> My Two Cents (and 2 points):
> Code operators in contests who seem to insist
> on sending code at VERY FAST speeds,...

I second this thought. I have found that 20 to 25 wpm is the best. Not too fast but not too slow.

--

73 es have fun
Peter
VE6YC D021wc

Artificial intelligence is no match for natural stupidity.

Date: Wed, 10 Feb 1999 17:51:42 -0800
From: "Roger A. McCarty" <rmccarty@earthlink.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>, "'HomeBrew'"
<homebrew@qth.net>
Subject: [32719] Re; Mechanical Etching tools
Message-ID: <000801be5561\$129b2a20\$9405b2d1@rmccarty.earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Thanks!! To everyone who replied.

Mike N1DVJ, pointed me in the direction of a pad cutter by Vector
Electronics. For anyone who might be interested, you can see it at;

<http://www.vectorelect.com/prototyping.htm>

Scroll down to "Hand Tools".

Old Dentists Drills and the Dremel Ball cutter seem also to be what I am
looking for. Many Many creative ideas!

Thanks again

Roger KD6CC

Roger A. McCarty ARS KD6CC
<http://www.qsl.net/kd6cc>
Qrp-L #1555 Southern California

Date: Wed, 10 Feb 1999 18:19:00 -0800 (PST)
From: Ron Stark <ku7y@dri.edu>
To: Tom Palmer <n1tp@worldnet.att.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [32720] Re: helping hams
Message-ID: <Pine.SOL.3.96.990210180831.21506B-100000@vortex.dri.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Wed, 10 Feb 1999, Tom Palmer wrote:

>
> Code operators in contests who seem to insist
> on sending code at VERY FAST speeds, including
> their "CQs" miss many more contacts than they
> would get if they would slow down. I will not
> listen for a speedball contester to drop his/her
> call sign 5, 10 or 15 times for me to copy it.
> I move on down the line rather than waste my time.

Top scoring stations will run rates of 200 to 300 contacts per hour depending on the exchange. While their rates are still high, they only lose points by slowing down.

What you will hear is for them to be up high in the bands during the slow times, sending at anything from 15 to 25 wpm and willing to slow even more if needed.

If they slow their speed down to the lowest common speed seen, their rates go way down and thus their score.

When you are doing S&P if you are trying to get a big score you will never stick around a station sending too fast for you to copy. You can usually get these stations later in the contest when they are not so busy.

If I can't get the exchange in two tries, I move on. It costs me one contact everytime I have to listen to the exchange again because I couldn't get it the first time.

The contest this weekend is different. You can't stay on one freq calling CQ. You MUST qsy after having someone call you. So you either get the info the first time or that station is gone!

And most of them are moving right along. I would guess the average speed to be around 30 wpm in the NA Sprint.

But there is one way to play and have fun in this contest if you can't copy these speeds.... go up high in the band, above all the fast ops. Then call

CQ. Call at whatever speed you copy well. Make those who answer qrs to your speed which they will. After all, they want your contact.

After that contact, move at least 5 khz and call CQ again, move again and etc. Rules say you have to move at least 1 khz before calling someone and at least 5 khz before calling CQ again.

Enjoy,

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

Date: Wed, 10 Feb 1999 20:19:02 -0600
From: Mike Mullins <mmullins@mastnet.net>
To: qrp-l@lehigh.edu
Subject: [32721] Re: Removing rosin flux, denatured alcohol
Message-ID: <3.0.5.32.19990210201902.0079d580@mastnet.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

There are dozens of different types of denatured alcohol. All are mostly ethanol with a few percent of a 'toxic' solvent added, such as toluene, ethyl acetate, or isopropanol. This is done to avoid the tax on drinkable ethanol. Generally speaking, they should work as well as 190 proof grain alcohol, which is ethanol with ~5% water. With regard to the other questions concerning other alcohols, the series is methanol, ethanol, propanol..., where methanol has solvent characteristics closer to water, with propanol more similar to gasoline (but not quite). Methanol (or methyl alcohol or wood alcohol) is the lowest boiling and is the most flammable. All of them are toxic, but ethanol is the real killer. Mike KD5CMN in Lake Jackson TX

Date: Wed, 10 Feb 1999 21:35:52 -0500
From: "Ed Tanton" <n4xy@mindspring.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Cc: <bcotter@pop.uky.edu>
Subject: [32722] RE: Removing rosin flux-NOT!!!

Message-ID: <001b01be5567\$3dfff690\$01010101@n4xy>

MIME-Version: 1.0

Content-Type: text/plain;
charset="Windows-1252"

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

ABSOLUTELY NOT!!! If ANY of this alcohol /ethanol gets into your electrolytics, they are toast. I don't care how many times it has worked for you Bill... if you haven't ruined some electrolytics, you've been VERY lucky. None of the usual solvents (that I know of) will do anything-but-destroy (sooner or later) common electrolytics. There are epoxy-sealed electrolytics MADE for such cleaning, but we don't usually get hold of those (dipped tantalums MAY be sealed well enough-I just don't know.)

If you are careful, you CAN do something like this on particularly nasty flux spots, using ONLY Q-tips & NO flush... but it's just not worth the risk to do anything more.

72 / 73 Ed N4XY

Ed Tanton N4XY EMAIL: n4xy@mindspring.com
189 Pioneer Trail
Marietta, GA 30068-3466 TEL: (770)579-3933

INTERESTS: *CW (99.5%) *QRP (QRP-L# 758)
*BoatAnchors *Test Equipment *Photography

~~~~~  
"Think you can, think you can't:  
either way you're right!" Henry Ford  
~~~~~

Date: Wed, 10 Feb 1999 21:52:38 -0600
From: Peter James <mrpj@mindspring.com>
To: qrp-l@lehigh.edu
Subject: [32723] Thanks for the help
Message-ID: <3.0.5.32.19990210215238.007cd100@pop.mindspring.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Thanks to all the people who responded to my question on old solder. Seems most recommend pure or almost pure alcohol to clean the joints and to use flux to get the old stuff to flow.
That should keep me busy for awhile!!

73, 72 Pete, WM4U

Date: Wed, 10 Feb 1999 21:55:43 -0500
From: S LYON <sslyon@worldnet.att.net>
To: qrp chat <qrp-1@Lehigh.EDU>
Subject: [32724] WE6W hrd on AR QRP net thru s-7 line buzz. Noise blanker ideas?
Message-ID: <36C246AF.F768C7BB@worldnet.att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

-not to filter Ed... the 3800v line buzz that's constant here. I signed with Bob, N5ZD and hrd Ed dive in -only 6-er I cud hear!

My trusty city-lot sloppy-sloper-zep seems to work fine, except for that buzz. The hi end is only 25' from the line that runs on two sides of my lot. What can I expect from the latest noise-blanker technology -any ideas?

Ed you were about 339 here -what pwr level? I was at 5w.
72 -s-
--

'Seab' Lyon - AA1MY
Beacon NY USA FN-31
QRP-L 574 ARCI 9253

Date: Wed, 10 Feb 1999 22:02:15 -0600
From: sda <sda@bellsouth.net>
To: qrp-1@Lehigh.EDU
Subject: [32725] Converting a QRP kit to surface mount components
Message-ID: <199902110401.XAA05653@mail11.lig.bellsouth.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello, all. I am new to Ham Radio, but am a experienced kit builder. I don't know a great deal about electronics/RF theory, but I am pretty sharp with a soldering iron and enjoy challenging kits.

I particularly like surface mount stuff--I know, I must be a lunatic. But anyway, I was wondering if anyone has ever taken a QRP kit

and converted it to SMT components to reduce the size of the rig even more.

See, I have this vision of an awesome monoband rig, like for 40 meters, with a rainbow tuner, SuperTick keyer, VXO, RIT, and mini LCD panel for digital readout of freq -- all done in SMT, that would ALL fit inside an Altoids tin, along with a 9V battery. :-)

Crazy? Possible? Anyone else want to take this on with me?

Peace and 72/3,
Todd, KD5GCH

Date: Wed, 10 Feb 1999 21:08:31 -0700
From: Niels Jensen Kristjansson <nkristja@cadvision.com>
To: qrp-1@Lehigh.EDU
Subject: [32726] RE:Vectronics
Message-ID: <1.5.4.16.19990210215812.1b7f7cee@cadvision.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi gang,

Was at their website and downloaded some of the manuals in .pdf format lots of interesting stuff.

www.vectronics.com if memory serves.

72 de Niels
VE6NJK/TF3NJ
CALGARY, AB

>Date: Wed, 10 Feb 1999 19:24:41 -0500

>I just got a complete Vectronics catalog in the mail and noticed some QRP
>receivers and transmitters kits. The transmitter is crystal controlled,
>but appears to be a "rubber crystal" for a small section of the band, and
>1 watt output. Also includes a T/R switching arrangement to allow
>hooking up the receiver. Any comments on them would be appreciated. If
>you respond direct, I will post the summarized comments.

>
>fred w2xn
>

>

Date: Wed, 10 Feb 1999 22:13:12 -0600
From: "Bruce Pea" <pea@pdnt.com>
To: <qrp-l@lehigh.edu>
Subject: [32727] Preperation Before Building
Message-ID: <000d01be5574\$d6c2a3c0\$96d910d1@wharfrat>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I've enjoyed reading all the comments and info on de-fluxing after soldering components to the board. I was wondering though, does anyone do anything to the board (i.e., cleaning, etc.) before soldering the first resistor? If so, what do you do?

Just wondering...

Bruce, N9WKE

Date: Wed, 10 Feb 1999 20:20:45 PST
From: Roger Traylor <traylor@ECE.ORST.EDU>
To: qrp-l@lehigh.edu
Subject: [32728] soldering, flux, cleaning
Message-ID: <199902110420.UAA08293@guille.ECE.ORST.EDU>

Guys,

Sent this before but it got lost somewhere.

I use a solder with water-soluable flux . It cleans up great with only hot water and light brushing. No chemicals, no fumes, nothing gets melted or ruined. I keep the water away from pots however.

It also goes well with lemonade.

Roger Traylor
WB4TPW

Date: Wed, 10 Feb 1999 22:22:52 -0600
From: Jeff Johns <jeffj@scott.net>
To: qrp-l@Lehigh.EDU
Subject: [32729] Cleaning after soldering
Message-ID: <199902110422.WAA25499x@scott.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit
Content-Transfer-Encoding: 8bit

Is it absolutely necessary to clean the board after soldering components or is it just a matter of personal preference?

73 Jeff

```
*----- Jeff Johns W4JEF - AMSAT# 32615 - QRP-L #1857 -----*
|jeffj@scott.net  w4jef@amsat.org | Reserve Patrol Captain |
| Satellite: Mir R0MIR-1, AO-27 | Jefferson County Sheriff's Dept|
|200LX+BayPac+FT50=Portable Packet| QTH Birmingham, AL USA |
*-----*
```

Date: Wed, 10 Feb 1999 23:27:20 -0500
From: "Ed Tanton" <n4xy@mindspring.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Cc: <traylor@ECE.ORST.EDU>
Subject: [32730] Water Soluble Flux Solder
Message-ID: <002501be5576\$d0b88c90\$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

And, to the best of my knowledge, won't hurt much of anything that straight water wouldn't hurt. What particular kind are you using Roger-I'd like to try some.

72 / 73 Ed N4XY email: <n4xy@mindspring.com>

Date: Wed, 10 Feb 1999 22:30:31 -0600
From: Glen Reid <k5fx@flash.net>
To: AQRN List <AQRN@onelist.com>, QRP-1 <qrp-1@lehigh.edu>
Subject: [32731] Austin QRP Club Meeting 1999-02-13
Message-ID: <36C25CE7.B2B9D125@flash.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit
Content-Transfer-Encoding: 8bit

The next irregular meeting of the Austin QRP Club will be at 11 AM on Saturday, Feb. 13th at Luby's.

Check the AQRN web page : <http://www.flash.net/~k5hgb/aqrn.html> for details.

Hope to see you all there.

73,

gr

GLEN REID
K5FX/M BGF

Austin...in the beautiful hill country of TEXAS...

Austin QRP Club # Pi

Email: k5fx@flash.net

Date: Wed, 10 Feb 1999 23:40:30 -0500
From: ntan <ntan@crosslink.net>
To: QRP-L <qrp-1@lehigh.EDU>
Subject: [32732] simple superhet
Message-ID: <36C25F34.50D81604@crosslink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Greetings, fellow QRPers-

I've put the 15m rx on hold and have decided to down size an old rig that I put together about 4 yrs ago. It is a kit from Roger Wagner, K6LMN. I had just got into building QRP stuff and was still a little unsure about putting together something from scratch. It was also my last kit. Nothing wrong with kits, but I just didn't feel like I had learned much. Anyway, that's just me....It turned out to be a simple, yet pretty neat little rx (40m). I used it with a vxo and did pretty good during my first Fall QRP QSO party. After that I started making other things, from scratch, and the K6LMN rig started gathering dust. Well last week, I took all the parts off the board and made up my own, and in the process made it more compact. Now I'm pumped up and am working on the xmtr. Rubbering the xtal with switched inductors. I can't wait to put in the air. The reason I'm writing this is to give my Thumbs UP to Roger, and recommend the K6LMN simple superhet as a fun starter project as well as a nice little rx for the field. One other thing ----in yesterdays posting someone was asking about a simple keyer for installing onboard, and someone mentioned the Tick-1, well I second that---its a great little chip and a bargain at \$5.00. My 2 sense worth....72--WA4CHQrp--keep it LOW

Date: Wed, 10 Feb 1999 22:22:52 -0800
From: dhuggard@cts.com (Doug Huggard)
To: qrp-1@lehigh.edu
Subject: [32733] Minor earthquake hits San Diego
Message-ID: <8cnw2UmbNzoP091yn@cts.com>

That was just me jumping up & down. The Norcal NC-20 kit arrived today. It's my first QRP rig & I'm pumped. Hot dang y'all!

Doug - WB6AJX

Date: Thu, 11 Feb 1999 00:58:34 -0600
From: Jay Bromley <w5jay@alltel.net>
To: dhuggard@cts.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32734] Re: Minor earthquake hits San Diego
Message-ID: <36C27F9A.881C5CBA@alltel.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

One hit in Fort Smith, Ar. hihi couldn't resist. Won't be able to inventory till the weekend.
73 de w5jay..

Date: Thu, 11 Feb 1999 02:28:24 EST
From: Ed Loranger <we6w@juno.com>
To: ssl Lyon <ssl Lyon@worldnet.att.net>
Cc: qrp-1@Lehigh.EDU
Subject: [32735] WE6W hrd on AR QRP net thru s-7 line buzz. Noise blanker ideas?
Message-ID: <19990210.232533.7911.3.we6w@juno.com>

Howdy Seab. It is so great hearing you often again.
You were 439 here in Santa Rosa. I was running between 4.2 and 5 Watts. I didn't have a lot of time to tune up since I'd just stepped in from my 11 mile bike ride from work. It wasn't as cold as yesterday so the fingers were working OK. (Unlike last night when I had about 5 qso's using my knuckles on the Les Logan bug!)

It is strange to use one's knuckles to send code and the frozen fingers don't move.

Great hearing you Seab. Just like old times. See ya. AA1MY es qrp-1 de we6w TU es cul 72 om. -Ed
72, Ed WE6W, AR Millennium QSO's=416/2000
<http://www.qsl.net/we6w> Radio, everyday in Santa Rosa, CA
QRP-L#1068 AR#112 QRP-Z#106 ARCI:9397 Norcal#2227 QAA#006

On Wed, 10 Feb 1999 21:55:43 -0500 S LYON <ssl Lyon@worldnet.att.net> writes:
<snip>
>
>Ed you were about 339 here -what pwr level? I was at 5w.
<snip>

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Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Thu, 11 Feb 1999 03:29:53 -0500 (EST)

From: Jim Fielden <fielden@utkux.utcc.utk.edu>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32736] Dan's Kits
Message-ID: <Pine.GS0.3.96.990211032829.24125A-100000@moe.cas.utk.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Wow, am I dreaming or is it true, Dan's once again and the Tranceiver kits such as the NN1G the NW80/20 and the 80 Meter Centennial SSB Transceiver?

As anyone bought one this month and is it true he is selling them once again?

Thanks.

Jim,
KU4QW

Date: Thu, 11 Feb 1999 09:30:31 +0100
From: Peter De Schrijver <dh2fby@hrz.uni-kassel.de>
To: qrp-1@Lehigh.EDU
Subject: [32737] Smite on 20 or 15 ?
Message-ID: <36C29526.848534B@hrz.uni-kassel.de>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit
Content-Transfer-Encoding: 8bit

Hi Guys !

Did anyone really try the 20 M mod for the SMITE , and made any QSO s ?
Will it work as well as on 80 M ?

My 80M Smite seems to work O.K. (great kit BTW.) , and now I d like to put it on other bands.

Has anyone tried to put the SMITE on 15M ? 15 should be a good choice for the next couple of years .
Will scaling the 20M Mod work , or do I need to replace the transistors ? If so , is there a drop-in replacement ?

TIA
Peter De Schrijver
dh2fby@hrz.uni-kassel.de

Date: Thu, 11 Feb 1999 10:43:03 +0100
From: "David Reid" <dareid@Synopsys.COM>
To: James Bennett <jwbennett@sprintmail.com>, QRP-L@lehigh.edu
Subject: [32738] Re: PA3HBB will be in Calif next week wanna meet up?
Message-ID: <199902110943.KAA04091@goofy.gr05.synopsys.com>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-Transfer-Encoding: 7BIT

OK James,

well, I'm arriving on Monday the 15th. late in the afternoon,
but pretty much anytime during the 2 weeks (to the 28th - I fly back
to holland on the 1st - from SFO)... You have the address of the
hotel -from the previous email... best ot organise it with the guys
there and then give me a call in the evening at the hotel.
PS thakns for the site detail, already plan a trip to Ham Radio
Outlet on the lawrence freeway...

73 es hope to SKED while in CA.
I also will be QRX 144/432 MHz with my handheld - QRP of
course... cos I don't have US license and don't think I can operate
as W6/PA3HBB... or can I????

Dave

Date sent: Wed, 10 Feb 1999 08:38:18 -0800
From: James Bennett <jwbennett@sprintmail.com>
To: dareid@synopsys.com
Subject: Re: PA3HBB will be in Calif next week wanna meet up?

> Dave,
> I hope you enjoy your trip to CA. I moved here from NJ a bit more
> than a year ago and enjoy living here. There are quite a few of the
> Norcal gang in this area so we should be able to get a group together.
> Let us know when would be a good time to meet for dinner and we can
> try to set something up.
> If you have a bit of time and plan to check out the surplus electronics
> places, here is a web page with info: <http://www.kce.com/junk.htm>
>

> 72/73
> James Bennett
> KA5DVS/6
>

De Dave
PA3HBB / G0BZF
GQRP- 3677
Licensed since 1981
(GM6JLQ, GI6JLQ, EI7VJF, GW6JLQ, GM0BZF, GJ0BZF, G0BZF,
PA3HBB, DL/G0BZF, PA/G0BZF, DL/PA3HBB, LY/G0BZF, LY/PA3HBB)
winner of QRP section of AGCW Summer 98 contest.

Date: Thu, 11 Feb 1999 07:53:01 -0400
From: Dave Marling <dbm@klis.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32739] Re: Cleaning after soldering
Message-ID: <36C2C49D.16A3D0B5@klis.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Morning all,

There seems to be an idea creeping into this thread that, somehow, solder flux is bad stuff and must be cleaned, scrubbed, erased, or otherwise gotten rid of... (bad, bad flux!).

Some years ago I did design work on low power VHF and UHF transmitters for tracking/location purposes. The owner and engineer of the company was absolutely certain that a persistent failure with one of these designs (400 MHz) was related to the flux left over (small production batch, hand soldered). He spent hours one night de-fluxing these transmitters only to have the problem remain. The unofficial "mission statement" (in the days before everyone and his/her dog had such things!) of the lab became:

"ITS NEVER THE FAULT OF THE FLUX"

I have never, in over thirty years in the RF side of this industry, seen where the flux from 63/37 solder caused any problems.

Other than having the track side of the pcboard look nice there is no

reason to worry about the stuff.

73

Dave

VE1VQ

>From the balmy (no snow yet in '99!) southern end of Nova Scotia

Date: Thu, 11 Feb 1999 06:58:34 -0500
From: ntan <ntan@crosslink.net>
To: QRP-L <qrp-l@lehigh.EDU>
Subject: [32740] Re:Audible SWR indicator..
Message-ID: <36C2C5E3.F9475430@crosslink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Scott-

I'm not sure this is what your looking for, but QST, Jan.86 had an article by VE3ERP called "Meet the SWAILER". Its a tune-up aid that not only provides an audible indication of RF output, but also indicates SWR. It goes on to say that it seems to work best at levels of 100w or less...I have the article if you'd like a copy.
best 72- and keep it LOW Neil WA4CHQrp

Date: Thu, 11 Feb 1999 07:12:54 EST
From: RobCap@aol.com
To: HEATH@LISTSERV.TEMPE.GOV, qrp-l@lehigh.edu
Subject: [32741] K2 is QRV
Message-ID: <189371f3.36c2c946@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Kit fans, my K2 is QRV. The radio was a lot of fun to build, over a ten-day period. I would say it took about 3/4 the time as the Heath HW-9. The HW-9 had a similar parts count, but also had much more complex wiring and mechanical assembly (and was a lot less radio). What a difference ten years can make in kit technology.

I only had one problem during assembly: a defective 4.0 MHz xtal that drives the microprocessor. It took me two days to find. Then, I popped in an old

4.0 Mhz xtal from my junk box, and the microprocessor came to life. However, the xtal was off frequency somewhat (probably due to mismatched series/parallel capacitance) which made the PLL hard to align (one more day to figure this out). Otherwise, it went together very nicely, virtually no point to point wiring except the speaker in the top cover. The K2's test equipment is built in.

The rig works beautifully. I made my first QSO with WA6HHQ (Eric, one of the founders of Elecraft) on 30 meters. Nice 559 signal from California to Virginia on 5 watts. The QSK is sweet: like the standard set by the Argo 509. The memory keyer is also a very nice feature.

I listened for very watery stations coming from Asia at the noise floor of my FT-1000, and was also able to copy them on the K2.

The rig runs on 180-200 miliamps with everything running, but drops to 140 mills with the receiver set to battery save mode, even with the LCD backlight on. The rig draws close to 100 mA with bargraph LED and backlighting turned off. I also notice that the penalty to the receiver is very modest in battery save mode. It sounds like you're turning off the preamp, but would be very acceptable for field use.

The K2's display button toggles between frequency readout and a display that provides battery voltage and current consumption. The unit also has a separate built in Freq Counter, which could be used as a general purpose piece of test equipment. The unit also has a built in RF power meter, and very classy Band+ and Band- buttons for switching bands, and the flywheel weighted tuning knob changes frequency at three tuning rates.

I haven't used all of the fancy functions yet (like scanning, programming my own xtal filter settings, etc.), but the RIT, XIT, and dual VFO's work very nicely. I understand taht there is direct frequency input, but haven't figured out how to do this yet. (Better read the manual).

Kit enthusiasts might want to check out "www.elecraft.com".

73,

Rob, W3DX

Date: Thu, 11 Feb 1999 12:22:17 -0800
From: dave.g0dja@psilink.co.uk (Dave Ackrill)
To: qrp-l@lehigh.edu
Subject: [32742] Re: Norcal 20
Message-ID: <E10Av80-0000N1-00@relay2.mail.uk.psi.net>
Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

>For those that might be color blind Chris' idea of using
>the meter will work. Take each resistor and measure
>its resistance. Put a "tag" on it or do something to
>keep track of it. Write down the color code and then
>have someone else verify that the colorbands on the
>resistor match.

Even though I'm not colour blind (first thing they tested when I applied to join the Electricity Industry over 20 years ago - HI), I find that testing the resistors in a kit, or after buying from the local electronics store, has saved one or two mistakes when building. Especially as the colours on different makes of resistor and different coloured bodies make some colours look alike. For example, Blue and Violet on red body resistors look different than on white body resistors and I've seen reds that look more like brown at times!

I find that if you have several resistors of the same value in a kit they often come with the paper holder still attached to each end of the resistors. These are used to make up the 'bandoleers' of resistors for mass production of electronic boards. So, I write the value of the strip of resistors on that.

Cheers de Dave (G0DJA)

Date: Thu, 11 Feb 1999 12:22:15 -0800
From: dave.g0dja@psilink.co.uk (Dave Ackrill)
To: qrp-1@lehigh.edu
Cc: qrp-canada@lists.gpfn.sk.ca
Subject: [32743] Next UK Foxhunt
Message-ID: <E10Av8L-0000N1-00@relay2.mail.uk.psi.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Appologies to everyone, but I will not be able to be the UK Fox on Monday 15th February, as I had planned, as I have to be away on Monday night for a meeting early on Tuesday morning.

Sorry about this, I'll see what I can do for later in the week.

Cheers de Dave (G0DJA)

Date: Thu, 11 Feb 1999 12:22:19 -0800
From: dave.g0dja@psilink.co.uk (Dave Ackrill)
To: qrp-1@lehigh.edu
Subject: [32744] Re: (CW) telegraphy and the internet
Message-ID: <E10Av8Q-0000N1-00@relay2.mail.uk.psi.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Thanks for the information on the book, do you have the ISBN or Dewy Decimal system number for the book please?

I heard one excerpt from the book on the radio, whilst driving between appointments, the other day.

Unfortunately, the other readings were at a time when I would normally be either working in the office or at some meeting or other, so I missed most of it.

It seemed like a very interesting story.

Cheers de Dave (G0DJA)

Date: Thu, 11 Feb 1999 08:00:11 -0000
From: "Frank G3YCC" <g3ycc@g3ycc.prestel.co.uk>
To: <jhenshaw@bellsouth.net>, "Low Power Amateur Radio Discussion" <qrp-1@lehigh.edu>
Subject: [32745] Re: K2 DX !!!! PA0IJM
Message-ID: <000001be55c2\$9e7d9800\$41e8b094@prsat0x1>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I used a similar antenna when operating from VK with my QRP Plus and worked back to GM twice on 40m with 2w. Height never more than 20ft.
Great QSO though!

.....
Frank G3YCC G QRP 042, G QRP Sales Officer.
QRP web page <http://www.homeusers.prestel.co.uk/g3ycc/>

Date: Thu, 11 Feb 1999 09:18:22 -0500
From: Zack Lau <zlau@arrl.org>
To: qrp-1@lehigh.edu
Subject: [32746] Re: SB-300 CW Filter source Found \!\!\!
Message-ID: <36C2E6AE.D55E37E7@arrl.org>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

FS YF-33H400 3395.4kHz \$30 Zack W1VT zlau@arrl.org

Date: Thu, 11 Feb 1999 07:21:30 -0800 (PST)
From: Ron Stark <ku7y@dri.edu>
To: Dave Marling <dbm@klis.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32747] Re: Cleaning after soldering
Message-ID: <Pine.SOL.3.96.990211070801.27212B-1000000@vortex.dri.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Thu, 11 Feb 1999, Dave Marling wrote:

> "ITS NEVER THE FAULT OF THE FLUX"
>
> I have never, in over thirty years in the RF side of this industry, seen
> where the flux from 63/37 solder caused any problems.

And I say that you are just lucky!

When I was at the Micromanipulator Co. in Carson City, NV, EVERY
cap meter that was returned due to instability was caused by
flux on the board.

I never saw a clean board with stability problems.

I have also see instability in RF final stages due to dirty
boards. These were in some of the first Motorola trunking
system amps. To keep those amps clean (the sig that is) you
HAD to use silver solder, which Motorola sent with the
units AND you had to clean up the connections when you
were done.

Fail to do either of those things and you would be back to

that site within about a year for the same problem!

Based on my experiences, I clean my boards. I use acetone or alcohol and have never harmed any parts. I use a stiff brush like a tooth brush and plenty of cleaner. There used to be (and may still be) some good spray can cleaners but I have found them to cost too much for me!

I sleep better at night with clean boards and extra guy wires! :-)

cul,

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

Date: Thu, 11 Feb 1999 08:26:10 -0700
From: Niel Skousen <nskousen@scientechn.com>
To: qrp-1@lehigh.edu
Subject: [32748] ElectroMagnetics on 20/20 ??
Message-ID: <4.1.19990211082437.00925ab0@eaglerock.if.scientechn.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I heard that there was an interesting section on electromagnetic weapons on 20/20 last night. Anybody see it ? Or better yet, anybody tape it ? Can I get a copy ?

TNX Niel

Niel Skousen Sr. Eng. Scientechn / NUSI
208.525.3742 nskousen@scientechn.com WA7SSA/qrp

Date: Thu, 11 Feb 1999 08:58:41 -0500
From: W5TB <w5tb@SoftHome.net>
To: jeffj@scott.net, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [32749] Re: Cleaning after soldering
Message-ID: <v04011704b2e892481f9d@[10.4.13.131]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>Is it absolutely necessary to clean the board after soldering components or
>is a just a matter of personal preference?

THANKS for asking Jeff -- I've been wondering the same thing after reading these posts. In the 40 years I've been building -- not near as much building as Mike, Chuck, et al -- just heathkits thru OHR it's never been a problem. Military specifications for jungle use where fungus attack is likely call for a special (rather expensive) solder -- but this seems about the only sort of environment where flux is considered a problem. Please summarize the responses you get -- especially the direct ones. I'd like to see the consensus of our experts on this topic.

73 T.E. 'Doc' Drake W5TB

Arlington, TX w5tb@softhome.net <http://www.qsl.net/w5tb/>
QRPARCI # 3252 NORCAL #1002 QRP-L #673 FISTS # 5365
ARRL Life Member

Date: Thu, 11 Feb 1999 08:50:43 -0700
From: Larry East <w1hue@amsat.org>
To: qrp-l@lehigh.edu
Cc: David Fifield <fifield@pacbell.net>
Subject: [32750] LM380, etc. (long)
Message-ID: <3.0.3.32.19990211085043.00949a80@axp1>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 11:40 PM 2/9/99 -0800, David Fifield wrote:

>
>Lastly, a note about the LM380N power dissipation. I have no
>idea where you got your information from Larry, but it is clearly
>incorrect. A quick look at the National Semiconductor datasheet
>for the LM380N reveals that the maximum power dissipation in the
>device running flat out at 2.5W output on a 22V power supply rail
>is just a tiny bit over 3W (this is the WORST case using an 8 Ohm
>load - 4 Ohm and 16 Ohm loads result in less power dissipation than
>this). Please tell us where you got your 5 to 7W number from?
>

I'm happy to oblige. My information comes from National Semiconductor's
"National Application Specific Analog Products Databook", 1995 Edition,
pages 1-6 through 1-9. I quote from page 1-7:

Absolute Maximum Ratings

Supply Voltage	22V
Peak Current	1.3A
Package Dissipation, 14-Pin DIP	8.3W
Package Dissipation, 8-Pin DIP	1.67W

Under "Electrical Characteristics" on the same page:

Output Power ($V_s=18V$, 8-Ohm load, THD=3%) (Note 3) 2.5W min

Note 3 states: "With device Pins 3,4,5,10,11,12 soldered into a 1/16 in. epoxy glass board with 2 ounce copper foil with a minimum surface of 6 square inches."

That's where I got my figure of a 2.5W maximum output capability. (Actually, that's the minimum output capability spec at a supply voltage of 18V; it's probably more like 2W at 12V.) I simply made a quick guesstimate of the possible power dissipation involved (incorrect, as shown below).

On page 1-8, there is a graph showing "Maximum Device Dissipation vs Ambient Temperature" with curves for various heat sink configurations. From that graph at 25 deg C, the maximum device dissipation ratings are:

- 1.4W in free air (no heat sink).
- 2.5W with 2 sq. in. copper foil on PC board.
- 3.1W with 6 sq. in. copper foil on PC board.
- 4.0W with "Staver V-7 Copper Wings".
- 8.3W with "infinite" heat sink.

Also on page 1-8, a series of graphs show device dissipation vs output power under various load, output power and supply voltage conditions. For a 4-Ohm load and 2W output, the dissipation is shown as just under 2W for 12V supply voltage and just over 2.5W at 14V. For 2W into an 8-Ohm load at a supply voltage of 14V, the dissipation is shown as about 1.2W.

You are certainly correct in stating that there is no reason to worry about the LM380 overheating in the NC20 no matter how hard it is driven -- PROVIDED the 10-Ohm decoupling resistor (R57) is left in place to limit the device current. It could be a different matter if someone should decide to reduce the size of R57 or replace it with a jumper, and that is the point I was trying to make. If R57 is replaced with a jumper, the graphs on page 1-8 of the databook and the fact that the NC20 PC board does not offer much in the way of a heat sink indicate that there could be an overheating problem at output power levels greater than 1W or so into a 4-Ohm load.

However, even with R57 shorted (NOT a good idea anyway) the graphs indicate there shouldn't be much of a problem at 8-Ohm or higher loads as long as the supply voltage is less than 14V. So there does not appear to be any earth shattering problem here -- I therefore stand (at least partially)

corrected. Sometimes I tend to be overly cautious...

No reflection on your design was intended; I was simply trying to alert would-be modifiers to a potential (but not too likely, it turns out) pit-fall.

As for the chirp (or lack thereof), I consider it to be a non-problem at this point. I was only presenting a theory as to a possible cause.

OK, so I broke my resolution ... but I felt compelled to reply to the request for the source of my information on the LM380. I shall now reinstate my resolution.

72, L.

Date: Thu, 11 Feb 1999 16:12:52 -0500
From: jim <kw3u@warwick.net>
To: qrp-l@lehigh.edu
Subject: [32751] FS NC-20 plus ZM-1
Message-ID: <36C347D4.588C@warwick.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Selling for my friend Don who isn't building anymore.

Listing here first as I'm sure there are those who have missed out.

One unopened just received NC-20 kit and one emtech ZM-1 tuner unopened. best offer.

In the meantime I'll be building mine..
tnx Jim KW3U

Date: Thu, 11 Feb 99 11:32:56 -0400
From: "Caitlyn M. Martin" <cait.martin@ibm.net>
To: "vhf@w6yx.stanford.edu" <vhf@w6yx.stanford.edu>, "Low Power Amateur Radio Discussion" <qrp-l@lehigh.EDU>
Subject: [32752] FS/FT: Tokyo Hy-Power HX-240 VHF to HF transverter
Message-ID: <199902111633.QAA17944@out1.ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"

Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi, everyone,

The previous buyer backed out, so I am listing this again:

I have a rare (in the US, anyway) Tokyo HyPower HX-240 VHF to HF transverter. This device uses your 2 meter all mode rig as an IF. 1-5 watts input gives you 15-40 watts output on high power, or 1.5-4 watts for low power QRP operation, in all modes. (3 watts will fully drive it.) The transverter has band switch positions for 10-80 meters, but can work the WARC bands. For example, if you tune to 147.120 CW on your 2 meter rig in the 7 mhz position, that will give you a frequency of 10.120 in the 30 meter band. (This also works for SWLing.) The unit has a very effective preamp and an output power meter.

This transverter is great for someone who has a very good 2 meter rig with lots of features to take advantage of, and wants an inexpensive, high quality route into HF or a very good backup rig. I used it with a bare-bones Yaesu FT-290R, and it did a great job as both a portable and base rig, and it's small size is ideal for those of us who can't afford to go out and buy a new IC-706II. So, even the most basic 2 meter all mode can work well.

Unit was made and imported in the early '90s. It is in very good condition (some minor marks and scratches), except that the previous owner wrote operating instructions in magic marker on the bottom of the unit. This is not visible in a normal operating position. This is a tiny rig. It comes with the DC power cord, but no box or manual.

You can see a picture of it at:

<http://www.netferrets.net/images/temp/HX240.JPG>

Will sell for \$225 firm, including shipping. I would love to trade this towards an NCG 7/21/50, if anyone has one they'd be willing to part with. I'd also take an NCG 15M in partial trade (but not an NCG 15SB). Prepayment by money order or cashier's check, please. One bounced check spoiled it for everyone else.

Thanks and 73,
Caity, KU4QD.

Caitlyn M. Martin
cait.martin@ibm.net
<http://www.caitys-world.com>

"They have computers... and may have
other weapons of mass
destruction" -Janet Reno

Date: Thu, 11 Feb 1999 11:43:52 EST
From: HWRM1SS@aol.com
To: zlau@arrl.org
Cc: njqrp@njqrp.org, qrp-1@lehigh.edu
Subject: [32753] Re: SB-300 CW Filter source Found \!\!\!
Message-ID: <a80ef213.36c308c8@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Zack,

It was good speaking with you today. The YF 33H400 3395.4 kHz CW filter is just what I needed for the SB-300 -- check and stamps are in the mail today!

Tnx es 72

Howard K3HW

Date: Thu, 11 Feb 1999 09:01:02 -0800 (PST)
From: Ron Stark <ku7y@dri.edu>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32754] Re: QRP Quarterly
Message-ID: <Pine.SOL.3.96.990211081137.27585E-100000@vortex.dri.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Wed, 10 Feb 1999, Francis Callahan wrote:

> Just recieved my QQ yesterday and idt is great it shows the dedication of
> everyone involved and the hard work that goes into it also dthe authors of
> the articles have really out done themselves on this one Thanks every one

Hi All,

This is very true.

George, N2APB has really done a bang up job on his first issue as the Managing Editor.

I would like to thank George for agreeing to take over the helm of the Quarterly and I'd also like to thank all the contributing editors for once again going the extra mile to change gears and satisfy another editor!

And thanks to all the authors who make the QQ what it is, and of course all the members that take the time to read it.

cul,

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

Date: Thu, 11 Feb 1999 12:20:08 -0500
From: "Joseph Street" <joseph.street@comdev.ca>
To: qrp-l <qrp-l@Lehigh.EDU>
Subject: [32755] clubs and rags
Message-ID: <36C31148.B0066C37@comdev.ca>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Having decided that QRP is the direction I am going in the hobby, I guess I should subscribe to more than just QRP-L. I know you guys/gals (I hate political correctness) out there are the ones to ask for advice on what are the best organizations/ magazines to subscribe to. So what do you suggest?

Ps I have been guilty of doing more tinkering than operating but then again I can honestly say (read brag) that I have home brewed an entire station including key, solar panel, feedline and antenna. So I tend to lean in that direction and would like to read a mag thats loaded with articles along those lines. However I'm trying to get on the air more!!!(read lid) I realize I'm going to get a hundred emails (direct please) with a hundred opinions on whats the best club out there, but hey I asked for it!

VE3VX0

Date: Thu, 11 Feb 1999 10:31:01 -0700
From: Dave Ek <ekdave@earthlink.net>
To: qrp-1@lehigh.edu
Subject: [32756] FOX: Thursday Night AB0G0--last reminder!
Message-ID: <3.0.6.32.19990211103101.0079dac0@mail.earthlink.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Last reminder!

>
>Gang,
>
>First notice--I'll be the furry one on Thursday night local (2/12/99
0200-0400 UTC). Look for me somewhere around 7.043. Hopefully I won't go
begging for contacts for the last 30 minutes this time. I'll be running my
-706 again with RIT, so spread out a bit. Logging & sending by hand/paddle
so please be patient and tolerant.
>
>72 de Dave AB0G0
>Colorado Springs

Date: Thu, 11 Feb 1999 11:54:26 +0000
From: "Bryan Turner" <turnerw@email.uah.edu>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>,
joseph.street@comdev.ca
Subject: [32757] Re: clubs and rags
Message-ID: <199902111754.LAA31199@uahis1.uah.edu>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT
Content-Transfer-Encoding: 7BIT

The QRP ARCI, which publishes the QRP Quarterly, is well worth the
money. They're at:
<http://www.qrparci.org/>
73 Bryan W8LN

Date: Thu, 11 Feb 1999 18:06:33 -0000
From: "Steve Sorrell" <ap036@detroit.freenet.org>
To: <ku7y@dri.edu>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [32758] Re: Cleaning after soldering
Message-ID: <011d01be55e9\$4576b120\$c042b3c7@sorrells>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Have to agree with Dave, I've seen stuff fail due to poor soldering, cold soldering, defective parts, but never due to flux.
de Steve, W8SFF

Date: Thu, 11 Feb 1999 18:06:51 -0800
From: dave.g0dja@psilink.co.uk (Dave Ackrill)
To: qrp-1@lehigh.edu
Subject: [32759] Re: (CW) telegraphy and the internet
Message-ID: <E10B0U2-0002mN-00@relay3.mail.uk.psi.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I can answer my own questions, as I've just collected the book from the local library in Wakefield!

Title: Victorian Internet: The remarkable story of the telegraph and the nineteenth century's online pioneers.
Author: Standage, Tom (1998)
Publisher: Weidenfeld & Nicolson, London
(This we already knew)

ISBN 0297841483
Dewey Number: 384.109

UK Price: Fourteen Pounds and Ninety Nine Pence (Avoiding the Pound sign problem - HI)

IMO an interesting book, although I've only just started to read it, there's mention of some famous names and systems in radio/wireless communications, such as ASCII, Baudot, Bell, Edison, Faraday, Kelvin, Morse, Reuter, Volta and Wheatstone. 'Hams' are even mentioned, but as a derogatory term! (Page 132).

Here's a question, who knows what the Gutta-Purcha Company (very important to long distance signalling, especially across the oceans) is called now?

If no one gets it, I'll give the answer tomorrow. :o)

Looks like a 'good read' anyway.

de Dave (G0DJJA)

Date: Thu, 11 Feb 1999 11:22:24 -0700
From: Bruce Kizerian <kizerian@ced.utah.edu>
To: ap036@detroit.freenet.org
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32760] Re: Cleaning after soldering
Message-ID: <36C31FE0.F9ADEEEA@ced.utah.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Sorry. Can't agree. I have had problems with solderflux on PCB's holding very high impedance vital signs circuits for medical products. Those who have never had problems with dirty flux on high Z circuits have been lucky, but it will bite them someday.

Bruce kk7zz

Steve Sorrell wrote:

> Have to agree with Dave, I've seen stuff fail due to poor soldering, cold
> soldering, defective parts, but never due to flux.
> de Steve, W8SFF

Date: Thu, 11 Feb 1999 10:21 -0800 (PST)
From: wctrautfield@west.raytheon.com
To: qrp-1@Lehigh.EDU
Subject: [32761] converting to SMT & K6LMN simple superhet
Message-ID: <0F700050V5SW6R@mail.hac.com>
MIME-version: 1.0
Content-type: TEXT/PLAIN; CHARSET=ISO-8859-1
Content-transfer-encoding: 7BIT
Content-Transfer-Encoding: 7BIT

Hi Todd

Funny you should ask, as I have been wanting to convert a known, simple design to surface mount technology for a while now. I also really like working with surface mount. And I too want to get the battery, radio and tuner into one box. I also want everything to be mounted on one board and to have all connectors right angle PC mount. This makes the thing more reliable as you get rid of the wire attaching to connectors.

I was thinking of starting with the Pixie and was going to query the group at large about which version to use. To get ideas, I looked at WE6W's web page quickly last night for his contest version, but was interrupted and so did not get too far. I know I would add the Tick and the sidetone and offset that goes with it and was going to order the FAR kit (previously Embedded Research Tixie) to get a look at this version. Now I know that this is a crystal controlled affair, which for me is no big deal, I'll just steal the crystals from my HW-16. At least I will sort of know what frequency I am on and that means I can dispense with a freq readout. That would be my first try at this. I would incorporate a rainbow like tuner with SWR right on to the board and provide a choice of end fed wire or the 50 ohm output of the Pixie's Tx. My connector of choice would be the right angle SMB or SMC. I would do the schematic capture and PCB layout on my laptop in my carpool and order a few prototype boards from the circuit board house. I am not going into business, just trying to make a really small, FUN, shirt-pocket radio.

Just today there was a post from WA4CHQ regarding the K6LMN simple superhet receiver. I just got this receiver and the matching transmitter as an unfinished project from someone last week. I fired up the receiver and at first glance thought it was pretty good. It covers the whole 40 meter band. And you can use its VFO with the matching transmitter. It puts out 3 watts. There's sidetone (I think) and a way to do the rx - tx switchover.

Has anyone ever used one of these radios? To me, it's also a candidate for a simple conversion to SMT. And is Roger, K6LMN, still active in the kit business? The guy I got this radio from said he bought it from Roger directly at the TRW swapmeet in Los Angeles.

OK, a technical question of sorts. I notice from the small sample of radios that I have looked at, that the wound toroids are always mounted standing straight up, in other words, at a right angle to the surface of the board. The SWL GM-15 that I am building does this as does the HW-8. In the interest of low profile, is there a reason why toroids cannot be laid down directly on the board? The only thing I can think of is that mounted straight up, there would perhaps be less interaction with the metallic

contents of the pc board(traces, ground planes etc.).

Thats it from my corner.

Curt
KE6CDC
Lompoc, Ca

Date: Thu, 11 Feb 1999 10:32:18 -0800 (PST)
From: Jeff <fantbb@yahoo.com>
To: qrp qrp <qrp-l@lehigh.edu>
Subject: [32762] QRPer's comments on the ZM-1,2 tuners?
Message-ID: <19990211183219.3104.rocketmail@send101.yahoomail.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

I am looking at buying the ZM-2 Antenna Tuner from Emtech. Looks like a nice little portable tuner for portable QRP work.

Just wondering what others think of it?

How well does it work?

Is it based on the Z-Match tuner designs?

Thanks for any and all input!

72!

Jeff

==
Jeff Jones
AB6MB
NorCal QRP Club #65, QRP-L #1780
CW Forever!!!
Ghost Hunter
Owner of the Delta MudCats fantasy baseball team
Long live Manchester United and the Oakland A's!!!!!!

DO YOU YAHOO!?

Get your free @yahoo.com address at <http://mail.yahoo.com>

Date: Thu, 11 Feb 1999 13:33:10 EST
From: PDouglas12@aol.com
To: joseph.street@comdev.ca, qrp-l@lehigh.edu
Subject: [32763] Re: clubs and rags
Message-ID: <ded945a7.36c32266@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Joseph and gang:

I recently posted this info, but it probably bears repeating every few weeks!

True, you will learn a lot by hanging around here on the QRP-L. But that isn't where the mother lode is.

1. QRP ARCI publishes the QRP Quarterly (frequently referred to here as QQ, for short), which is a treasure trove of projects, hints, reviews, and general QRP operating information. 2. Norcal (the Northern California QRP Club) publishes the QRPP quarterly journal. It is the place to find the latest, hottest rigs, accessories, kits and know-how in QRP. The last few issues had more and better editorial content than a couple of months of 73 or CQ magazines, and it was all QRP related. To my mind, the essence of our branch of the hobby is learning, building and operating, and these two club journals are essential to that end. If you are a youngster, tell your folks these journals are educational tools, and they are a very good investment. In fact, your whole ham radio hobby is just about the best educational tool your parents can invest in. Same goes for us old timers.

So, if you can possibly afford it (and it is way less than the price of a kit) do join and subscribe to these essential club journals. One really really neat thing is that you can still buy all of the years of QRPP in annual bound books for about \$15/year. And if you haven't ever read any of these old issues, these annuals, which each contain four quarterly issues, starting with the 1993 book will provide bathroom reading for the indefinite future! (Oh, and if you want to make sure you get all the goodies, don't overlook the Colorado QRP (CQC) and Michigan QRP clubs that publish excellent quarterly journals too. And the NW QRP club publishes online too!) Anyway, here are the addresses for the big two.

QRP-QRCI

848 Valbrook Court

Lilburn, GA 30047

(Checks payable to QRP-ARCI --\$15 in USA \$18 in Canada and DX is \$20)

And

Norcal/QRPP

3241 Eastwood Rd.,

Sacramento, CA 95821

(Checks payable to Jim Cates, not Norcal. \$15 USA and Canada; \$20 DX)

And sigh, yes, I do have a connection with these institutions. I am on the BoD of QRP ARCI and I am a proud member (with Zombie badge, thank you) of Norcal

72,

Preston Douglas WJ2V

Date: Thu, 11 Feb 1999 14:14:17 -0500

From: "Ed Hare, W1RFI" <w1rfi@arrl.net>

To: qrp-l@lehigh.edu

Subject: [32764] Re: QRP Quarterly

Message-ID: <36C32C09.13C4@arrl.net>

Mime-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

Ron Stark wrote:

> George, N2APB has really done a bang up job on his first issue
> as the Managing Editor.

> I would like to thank George for agreeing to take over the helm
> of the Quarterly and I'd also like to thank all the contributing
> editors for once again going the extra mile to change gears and
> satisfy another editor!

> And thanks to all the authors who make the QQ what it is, and
> of course all the members that take the time to read it.

I agree on all counts, Ron, but let us not forget to thank you for the work you did on the Quarterly when you were the overworked editor. I am sure that George will be reading all of this avidly, so I will say

publically what I intended to say privately:

George,

Let me congratulate you for continuing the fine traditions of the QRP Quarterly. When I read through the issue, I could tell immediately that the magazine is in fine hands. It is a credit to both you and your predecessor, Ron Stark, that if it were not for the announcements of the new editor, I would not have noticed that the mantle of command was now on a different set of shoulders. The Quarterly is what it has been for a long time, the finest QRP magazine going.

Keep up the good work.

On a related note, I wanted to let you know that I am available by email if you have any questions about the ARRL, especially the ARRL Lab. I would be glad to offer my input on any material about the Lab.

72 from the ARRL Lab,
Ed Hare, W1RFI

Date: Thu, 11 Feb 1999 11:46:11 -0800
From: ki6ds@dpol.k12.ca.us (Hendricks, Doug)
To: <qrp-1@lehigh.edu>
Subject: [32765] NorCal 20 Blank Case Status
Message-ID: <01be55f7\$2db25ea0\$630a0d0a@doug.dpol.k12.ca.us>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I have received orders for 25 of the cases, and have 75 left. The cases are exact matches to the NorCal 20 cases. Made from .060 aluminum, consist of a clam shell top and bottom, and have blank panels for the front and back with a 1/2" tab bent over on each end. The front and back panels are attached to the top and bottom with pem nuts and counter sunk screws (included with the cases) that fit flush with the cabinet. The cost of the cases is \$15 plus \$4 shipping and handling. To order please send \$15 + \$4 shipping and handling for each case to:

Doug Hendricks
NC20 Case offer
862 Frank Ave.
Dos Palos, CA. 93620

If you would include a self addressed mailing label it will help tremendously. Also, please make the check out to Doug Hendricks and NOT NorCal.

72, Doug, KI6DS

Date: Thu, 11 Feb 1999 11:53:02 -0800 (PST)
From: Paul Erickson <paule@sfu.ca>
To: qrp-l@lehigh.edu (qrp), qrp-canada@lists.gpfn.sk.ca (qrp-canada)
Subject: [32766] Temp sensing circuit needed.
Message-ID: <199902111953.LAA07955@fraser.sfu.ca>
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I'm looking for a circuit to control a couple of muffin fans, and the Handbook, and the other references I have available don't seem to have anything. Any suggestions?

cheers, Paul VE7CQK/email: paule@sfu.ca

Date: Thu, 11 Feb 1999 15:09:47 -0500
From: "Ed Tanton" <n4xy@mindspring.com>
To: <ku7y@dri.edu>
Cc: "QRP-L Reflector" <qrp-l@Lehigh.EDU>, "Elecraft FT List" <elecraft@qth.net>
Subject: [32767] RE: Cleaning after soldering
Message-ID: <006d01be55fa\$791ef710\$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I said about the same thing earlier-and not to beat a dead horse (but it isn't dead)... in my 37 years of ham radio and 25 years of professional electronics, I have never seen a problem due to flux. Most-but not all-companies I worked for removed the flux from their own-mfgr pc boards. All of them experienced the occasional electrolytic failure due to this (except the MIL companies who used only epoxy-sealed MIL-spec caps) and accepted it as a matter of course.

I repeat: no board in my experience has ever had a flux-related failure... but they have had capacitor failures attributable to improper cleaning techniques. I DID clean the flux off that PC-XT I built from a bare pc board, but did so after filling in the zillion or so plated-thru-hole "jumper" holes, holding the board upside down, and being extremely careful with the few remaining holes (the ~ 9 board mounting holes.) It never had a failure, but it sure was a lot of trouble. I believe anything less and I've lost some caps.

The reason for the Motorola failures is easily explained by the continuously high humidity of the outdoor site. I would be curious to know if such failures were as common in states like AZ? Humidity problems are a bear, and flux residue will, indeed, soak it up like a sponge, almost certainly producing partially conductive compounds. But indoors? Nah-h-h.

Summary: as long as you are very careful with your usage of solvent, you certainly can remove flux from your pc boards. I would NOT consider de-fluxing a regular pc board with any method that caused the solvent to run down the board (and then on through the plated-thru-hole jumpers to the other side, and possibly into the electrolytics.) If I contemplated such cleaning, I'd epoxy seal ALL the electrolytics, and not mount any polystyrene caps, nor any susceptible misc. plastic items/whatever.

I WILL be cleaning my K2 pc boards with first, acetone; and then 99% water-free alcohol, but with lots of wooden Q-tips, and extra care about runs. The reason is mostly esoteric, but also because I DO contemplate outdoor operation... and there is that chance it would be enough to bother the flux residues enough to matter. Not much of a chance I think, but I don't ever take chances like that with preventable problems.

Date: Thu, 11 Feb 1999 15:04:37 EST
From: Robsparks@aol.com
To: qrp-1@lehigh.edu
Subject: [32768] AR QRP 40m Net results
Message-ID: <7001694b.36c337d5@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

The AR-QRP Net last night had 11 check-ins amid fair band conditions. QRN and QRM were moderate, and the band improved considerably toward the end of the net. We were pleased to have several new check-ins, and of course, very

pleased to have the regulars check in as well. The new QNI procedure worked better - and worse - than expected. Using a single letter to alert the NCS of your presence is a great idea for QRO, but in practice, I found it pretty difficult to grab a single letter out of the hash. Let's stay with the new way to give it a fair chance. Next week I will be on vacation and will be operating from Colorado. If one of the regulars would like a shot at NCS, this is a good time to speak up! It is great fun and very good experience to be NCS for an informal (read: can't do anything wrong) group. Please let me know soon, however, as I leave Saturday morning. If no one volunteers, then I will attempt to be NCS from the mountains. Here are the stations that checked in:

N0HJ	John
NY3M	Bill
K9UT	Jerry
W2XN	Fred
VE3VXO	Joe
K5ZTY	William? Houston? Sorry, I lost you!
N3RV/M	Chris
K4NK	Les
AA1MY	Seab
WE6W	Ed
K4PYM	Geo

The NCS was Bob AB5ZD, QTH Alexandria LA, running 12 watts to a G5RV up in pecan trees. Orientation of the ant wire is NNW to SSE. The AR-QRP 40 net meets every Wednesday on 7.042 at 0130Z. It is open to members and non-members! CU there!

Date: Thu, 11 Feb 1999 15:09:21 -0800
From: Bob Kelllogg <ae4ic@nr.infi.net>
To: elecraft <elecraft@qth.net>
Cc: QRP-L <qrp-l@Lehigh.EDU>
Subject: [32769] K2 Practical Performance
Message-ID: <36C36321.30E0871C@nr.infi.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Guys,

My Elecraft K2 has been up and running since Sunday. I've been making a few contacts each day with it as I familiarize myself with the controls and fine tune the filters, etc.

Being a field tester, I expected to deal with some problems as I

assembled the kit. There were a few, less than half a dozen, manual errors that would have caused the wrong part to be used. These errors were caught by the first few builders. Here on the east coast, I was behind the west coasters, so took advantage of their suggestions. The only parts I had to remove and replace were those I put in the wrong place because of my own carelessness. There have been many suggestions for making the manual clearer and more complete. It was **very** complete as we received it, but, you know, we had to find something to pick at...

Eric and Wayne have been at it 27 hours a day answering questions, fielding suggestions, etc. If their attention to detail during this testing process is an indicator of future customer service from Elecraft, we are all in for a treat.

I did run into three or four problems that I considered serious. In **every** case these problems were imagined. What I mean is this: I thought the keyer didn't work. It did when I finally set the mode to "CW". :-) I thought the tenth segment on my LED S-meter didn't work. It did when I made the correct adjustments. There were one or two other problems like those.

Today, I went through the rig again, made one mod and realigned it.

At this point, the rig is better than I am. By that, I mean it has good features that I've not learned to use properly. So, it's up to me, now.

So far, I've made a couple of DX contacts and some W's and VE's. The latest was Clif, AB5UA/M, while he was tooling around Oklahoma.

I'm having a ball with the K2! I expected a lot, but it's more than I expected.

CUL,
Bob Kellogg, AE4IC, Greensboro, NC
Prolably, not nececelery. - Benny Hill

Date: Thu, 11 Feb 1999 15:23:49 -0500
From: Bill Cotter <bcotter@pop.uky.edu>
To: qrp-1@Lehigh.EDU
Subject: [32770] Cleaning boards/flux removal - WOW ;^)
Message-ID: <3.0.5.32.19990211152349.00965d10@pop.uky.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Interesting commentary about cleanup issues.

Ed, in 30yrs on and off the bench I must say I never heard or experienced the one about ethanol destroying electrolytic capacitors. Electrolytics tend to die all by themselves when they dry up or are subject to overvoltage/current. Guess I'm ready for a new one. However, it makes me wonder: if relatively inactive ethanol can get in, what's keeping the MORE chemically-active electrolyte from getting out? I'll drop by RS tonight and pick up a couple of garden variety electrolytics, attach them to the GR-1608 Z-bridge to monitor and bathe them in the drink overnight. Any takers on the outcome? Tomorrow night a couple of tantalums.

Dave, I think you are absolutely correct - there is nothing wrong about leaving rosin flux on our completed projects. That nasty, sticky, ugly trash spewed all over our beautiful craftsmanship isn't bothering anyone who doesn't look. On the other hand, if it is cleaned off, the board really looks nice - just may not work any better. Seems like I have the same argument with my two kids about washing their hands after they use the bathroom - "no one can prove not washing will make you sick if you don't", but we wash them up anyway just for good measure, hi.....

There are a family of flux products (ie: StaBrite) that are, in fact, quite nasty if left behind. Generally used for silver soldering, these can damage circuit components chemically if they aren't washed off with water.

Doc, military specifications for soldering at the depot level requires skill certification after attending "solder school". The course I took in 1972 was a week of 8-hour days, one day of which was lecture followed by four of continuous soldering. Every instruction for soldering had a cleanup phase that included an alcohol wash to remove rosin flux and for hi-Z (100M up) circuits, a special wash with another reagent (I can't remember offhand). The idea about cleanliness, aside from good workmanship, is that rosin can/will attract/collect dust, dirt, crud, etc. that can be conductive, possibly forming ionic salt-bridges. In the fungus environments Doc refers to, not only are the boards cleaned thoroughly, but they are coated, top and bottom, with a soft clear plastic-like substance for protection.

73 es fb qsos Bill N4ALG

Bill Cotter, N4ALG	E-mail: bcotter@pop.uky.edu
173 Carolyn Lane	Home: (606) 887-5563,2402

Nicholasville, KY 40356-9340 Work: (606) 323-6474

Date: Thu, 11 Feb 1999 13:21:33 -0700 (MST)
From: Paul Harden <pharden@aoc.nrao.edu>
To: Paul Erickson <paule@sfu.ca>
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [32771] Re: Temp sensing circuit needed.
Message-ID: <Pine.SOL.3.91.990211131025.4701A-100000@zia>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Thu, 11 Feb 1999, Paul Erickson wrote:

> I'm looking for a circuit to control a couple of muffin fans,
> and the Handbook, and the other references I have available
> don't seem to have anything. Any suggestions?
>
> cheers, Paul VE7CQK/email: paule@sfu.ca

The LM235 is a cheap precision temperature sensor available from Mouser for about \$1 US. It's output is 10mV per degrees K. For a controller, you could simply use an op amp as a comparator ... comparing the voltage output of the LM235 (about 2.7v at room temp) on one input to a voltage set by a pot to the other input. The output of the comparator will go HI (about +Vcc) or LO (0V) as the LM235 voltage goes above or below the threshold voltage set by the pot. This in turn can slam a transistor on and off, which turns a relay on and off for turning the 110vac fan on and off.

Just looked it up ... it's in the National Semiconductors LINEAR data book #2, section 6 (containing other temp. sensors as well). Also has some typical application circuits, including the simple comparator approach discussed above (although it shows turning on a dc heater - just replace the heater element with a 12vdc relay coil).

GL, Paul NA5N

Date: Thu, 11 Feb 99 15:36:08 -0400
From: "Caitlyn M. Martin" <cait.martin@ibm.net>
To: "thp@onelist.com" <thp@onelist.com>, "vhf@w6yx.stanford.edu" <vhf@w6yx.stanford.edu>, "Six Meters" <50mhz@qth.net>,

"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [32772] (Somewhat off topic) Computer FS/FT for *specific* ham gear
Message-ID: <199902112036.UAA113734@out5.ibm.net>
MIME-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi, everyone,

I guess I'd like to see this go to benefit another ham, rather than anywhere else, so I'm posting it to the reflectors first. For those who don't like to see computer stuff here, my apologies for the bandwidth.

While I've never built a radio from a kit or parts, I can do computers :) This is a home-built and upgraded PC. The heart is a Cyrix 6x86-150+ 150 mhz CPU (clocks about the same as an Intel Pentium 180) on a motherboard with an Intel VX chipset and 256K cache, 64 MB 60ns RAM, 24x front-loading Goldstar CD-ROM drive, 7.0 GB Maxtor EIDE hard drive, 2 MB Trident 9680 video card, 1.44 MB 3.5" floppy, Creative Labs Soundblaster Vibra 16 sound card.

I can ship with Windows NT Workstation 4.0 loaded on the hard drive and a legitimate OEM CD-ROM, but I don't know where the manual is. If you prefer, I can load it with Red Hat Linux 5.1 or OS/2 Warp 3.0 (with CD). If you want OS/2 Warp 4.0 or Windows '98 I can do that too, but don't have a license to spare, so you'll have to buy a copy.

This system is certified Y2K compliant by the motherboard manufacturer, and passes the Y2K compliance test provided with Windows NT 4.0 Service Pack 4.

System does not include the monitor, mouse, keyboard, or speakers. Original manuals will be included for the motherboard, hard drive, and sound card. I probably can find some other docs as well, but I don't want to promise that, just in case.

This system is used, but is working beautifully. However, I provide no warranty other than that it will not be DOA. I'll try to provide another ham with a reasonable amount of tech support if you need it. This message was sent on the computer I'm selling :) Yes, I have others :)

I'll entertain offers, and figure this will cost about \$20 for me to ship. This makes a great, inexpensive system that will run most all of today's software.

My phone number is (919) 851-4537 if you'd like to discuss it.

Now... if you want to trade, here is the list of every last piece of ham gear I am currently interested in. If it isn't on this list, I am sorry, but I don't want it right now. (Note this is all QRP HF or 6 meter gear.) I realize that these are not all even trades, and that's all open to discussion.

NCG 7/21/50, NCG 15m
Kenwood TS-660, TS-130V, TS-120V
Yaesu FT-7, FT-301 (10 watt versions only)
Icom IC-501
TenTec Argo 556
Any SSB/CW monobander by Tokyo HyPower, Amp Supply, or Kantronics

Thanks and 72/73,
Caity
KU4QD

```
-----
Caitlyn M. Martin                "They have computers... and may have
cait.martin@ibm.net              other weapons of mass
http://www.caitys-world.com      destruction"  -Janet Reno
-----
```

```
-----

Date: Thu, 11 Feb 1999 15:24:42 -0500
From: DNT1@daimlerchrysler.com
To: qrp-l@Lehigh.EDU
Subject: [32773] Re: 7040 area may be crowded this weekend
Message-ID: <05256715.00702712.00@lmgodd02.notes.chrysler.com>
Mime-Version: 1.0
Content-type: text/plain; charset=us-ascii
Content-Disposition: inline
```

Dave wrote:

```
> I know many of you dont like it but if the rtty seems particularly
> prominent around 7040, it is because the rtty contesters are seeking to
> avoid the earthquake relief work.
>
> 73 de Dave, N0IT
```

Thanks for the info Dave, at least this gives us some hope that it'll stop soon

enough. I don't mind working around emergencies! I guess I'm somewhat used to the constant "creeping" downward of FM on 2M, makes me get concerned quickly when everything seems to shift downward avoiding others who have also shifted down to avoid something! I just noticed the shift as the maritime service dropped code (so they say) for satellite location & had wondered if the rest of the world had figured that it's demise had come as well...

72,

Don T. AI4CW

QRP-L#1670

Toney, AL

EM64pw

Date: Thu, 11 Feb 1999 15:56:12 EST
From: PDouglas12@aol.com
To: qrp-l@lehigh.edu
Subject: [32774] K2 sighting on 20m
Message-ID: <28465ad8.36c343ec@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Gang,

I am stuck home with the leftovers of the flu, and finally feeling better, found my way into the shack. On the 2N2/40, 40m was dead, but 20 sounded like there were signs of life on the Sierra. I pushed the general CQ button on the CMOS III, but got no answer. OK, pushed the CQ QRP button, and back came a feller in Tenn. name o' Conard, WS4S. Nice signal, easy fist. I tell him my name, QTH and give him a 559.

He comes back with a 429 to 579, with QSB, and a chuckle. He says he's running 4w from a K2 into a vertical. K2? Did I hear K2? I send him a request to repeat the rig, BK, and he sends back Elecraft K2. HI HI, I send. I am on the list for the next round of K2s. Conard says it went together reasonably smoothly, and it is a great rig. Takes thinking and getting used to, but that's the good part. Hey Conard, your K2 sounds OK here in Long Island. My workbench is clear and ready.

72,

Preston WJ2V

Date: Thu, 11 Feb 1999 15:44:56 -0800

From: Bob Kellogg <ae4ic@nr.infi.net>
To: wctrautfield@west.raytheon.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32775] Re: converting to SMT & K6LMN simple superhet
Message-ID: <36C36B78.C565CEFB@nr.infi.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Guys,

The KnightSMiTe, available from the Knightlite QRP Club is a Surface Mount Pixie II kit available for \$10 each plus \$3 shipping. (three kits for \$33) Kit includes board, crystal and all parts except case. Frequency is 3.6864 MHz.

Order from and make checks payable to me. Please enclose a self addressed label.

wctrautfield@west.raytheon.com wrote:

>
> Hi Todd
> >
> Funny you should ask, as I have been wanting to convert a known,
> simple design to surface mount technology for a while now.

CUL,
Bob Kellogg, AE4IC,
4708 Charlottesville Rd.
Greensboro, NC 27410
Probably, not necessary. - Benny Hill

Date: Thu, 11 Feb 1999 14:02:18 -0700 (MST)
From: <msix@nmia.com>
To: Bill Cotter <bcotter@pop.uky.edu>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32776] Re: Cleaning boards/flux removal - WOW ;^)
Message-ID: <Pine.LNX.3.93.990211135811.1780A-100000@plato.nmia.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Bill - After all the QRM and BS, you would have
to show up with common sense and destroy illusion!

73 - John W7ZFB

1400 Catron SE Albq, NM 87123

* Homebrewer since 1947 CW BoatAnchors Norcal #930 *
* BA CW freqs - 3578, 7050, 7118, 14050, 21050, 28050 *

Date: Thu, 11 Feb 1999 13:11:56 -0800 (PST)
From: Paul Erickson <paule@sfu.ca>
To: qrp-1@lehigh.edu (qrp), qrp-canada@lists.gpfn.sk.ca (qrp-canada),
paulem@ix.netcom.com (kenwood (Paul))
Subject: [32777] FS: boards for IRC filters
Message-ID: <199902112111.NAA28346@fraser.sfu.ca>
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I have the solder in boards for the IRC cw filters for
the kenwood series. I also have the switch kit for the
ts940. \$25 for all shipped.

cheers, Paul VE7CQK/email: paule@sfu.ca

Date: Thu, 11 Feb 1999 15:17:38 -0600
From: "Phillips Richard" <phillips@msoe.edu>
To: dbm@klis.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32778] Re: Cleaning after soldering
Message-ID: <36C348F2.CF687F5D@msoe.edu>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Well, I worked for a small electronic job shop many years ago that did
work for the Navy. We had a Navy inspector that would examine samples
of our pc boards and insisted that we remove the flux. Maybe under
certain conditions flux is the fault.
At any rate, I have used all sorts of solvents to remove flux from pc
boards and have found that acetone is the best, especially for very old

boards. I like a clean board whether it makes a difference or not electronically.

Of course use common sense (or is it dead). Acetone will dissolve certain plastics. But then I am cleaning a circuit board, not plastic. When we did the Navy work we would actually soak the boards in a small dish with about a half an inch of solvent (carbon tet I think). And for the alarmist on this list who is so worried about electrolytics I have had an electrolytic soaking in a beaker of acetone for the last 3 hours with a meter attached, reading the capacity. It is a cheap run-of-the-mill 470 uf @ 10 volts electrolytic and the worse thing that has happened is that the outer plastic cover expanded and fell off. Meter readin is 498 and counting.

73 Rich, AA9L

Dave Marling wrote:

>
> Morning all,
>
> There seems to be an idea creeping into this thread that, somehow,
> solder flux is bad stuff and must be cleaned, scrubbed, erased, or
> otherwise gotten rid of... (bad, bad flux!).
>
> Some years ago I did design work on low power VHF and UHF transmitters
> for tracking/location purposes. The owner and engineer of the company
> was absolutely certain that a persistent failure with one of these
> designs (400 MHz) was related to the flux left over (small production
> batch, hand soldered). He spent hours one night de-fluxing these
> transmitters only to have the problem remain. The unofficial "mission
> statement" (in the days before everyone and his/her dog had such
> things!) of the lab became:
>
> "ITS NEVER THE FAULT OF THE FLUX"
>
> I have never, in over thirty years in the RF side of this industry, seen
> where the flux from 63/37 solder caused any problems.
>
> Other than having the track side of the pcboard look nice there is no
> reason to worry about the stuff.
>
> 73
> Dave
> VE1VQ
> >From the balmy (no snow yet in '99!) southern end of Nova Scotia

Date: Thu, 11 Feb 1999 16:17:34 -0500
From: "Joseph Street" <joseph.street@comdev.ca>

To: qrp-1 <qrp-1@Lehigh.EDU>
Subject: [32779] clubs and mags
Message-ID: <36C348EE.4D3C543C@comdev.ca>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Many thanks to all who responded to my question about which clubs to join.

I have decided to join NORCAL and ARCI and maybe GQRP as most of you indicated.

so no need to continue flooding my email buffer to the limit. I'm afraid your going to let the smoke out of my computer memory banks!!

tnx es gud hunting tonite!!

Date: Thu, 11 Feb 1999 18:07:36 -0500 (EST)
From: Chris Cartwright <ccart@dns.vidtel.com>
To: Don Trammell <dtrammel@traveller.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32780] Re: FYBO: MDmW (WQ3RP)
Message-ID: <Pine.LNX.3.93.990211175913.1123A-1000000@dns.vidtel.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Mon, 25 Jan 1999, Don Trammell wrote:

> Second, I was amazed at how some stations stood out so strong (WQ3RP &
> WQ0RP were booming the whole time I was operating) while others were
> simply "whispers on the wind". WQ3RP was my first contact for the day
> at 2343 & I thought "I've got it made if they're all this strong!".

We try! The "gang" at WQ3RP, was N3XRV and N3BYY, and the antenna was a G5RV "beam" at 37 feet. I found it on L.B. or Cecil's web page last year. Just a 102' G5RV with a single director. With all the good reports I've seen for WQ3RP I had to go back and make sure the IC735 was really set for five watts... it was :)

Ended up with 88 Q's, 34 SPC's and 32 mults (field, bat, temp) so we ended up at 95,744. Good, but not good enough to keep our soup at home:(

Log and soapbox are pending... if I can ever get out of work before 11 pm any time this week. Geeez, don't these boss types think I have anything

better to do:)

```
-- Chris Cartwright,   Technical Engineer   |       ccart@vidtel.com       --  
-- N3XRV      ARRL-VE   Norcal Zombie #163   |       Gaithersburg, MD FM19je   --  
-- MDmW #5 NJ-QRP #105 QRP-L #655 NORCAL #1891 FISTS #5028 QRP-ARCI #9271 --
```

Date: Thu, 11 Feb 1999 17:09:36 -0500
From: Bill Cotter <bcotter@pop.uky.edu>
To: qrp-l@Lehigh.EDU
Subject: [32781] Re: Cleaning after soldering
Message-ID: <3.0.5.32.19990211170936.00a75b20@pop.uky.edu>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Rich,

Interesting test. Probably the worst that will happen will be the loss of some good acetone due to contamination from the plastic jacket. But that stuff doesn't mix well with pink lemonade anyway, it's the loss of a jigger, I mean beaker, of 190-proof that worries me ;^)

73 Bill---

>And for the alarmist on this list who is so worried about electrolytics
>I have had an electrolytic soaking in a beaker of acetone for the last 3
>hours with a meter attached, reading the capacity. It is a cheap run-of
>-the-mill 470 uf @ 10 volts electrolytic and the worse thing that has
>happened is that the outer plastic cover expanded and fell off.
Meter
>readin is 498 and counting.
>73 Rich, AA9L

Bill Cotter
Technical Systems Project Manager
VPIS Special Projects Office
McVey Hall, Room-100
University of Kentucky
Lexington, KY 40506-0045
Mail: bcotter@pop.uky.edu
ICQ: 13117266
Pager: (606) 259-6082
Phone: (606) 323-6474
FAX: (606) 323-1978
Home: (606) 887-5563,2402

Date: Thu, 11 Feb 1999 15:22:26 -0700
From: Brad Mugleston <bmug@gwl.com>
To: "'qrp-1'" <qrp-1@lehigh.edu>
Subject: [32782] Elmer2###
Message-ID: <01BE55D2.55CF61A0.bmug@gwl.com>

On January 23, I posted the following WinSpice circuit (Circuit 1). I was having problems as I was not getting both sides of the rectified signal. In doing some testing I noticed that Node 0 of V1 gives a very small square wave (not the full sine wave of Node 1).

I asked for some help and got a lot of questions but one person did come up with a solution (Circuit 2). He has asked not to be identified so I won't. BUT it points out something interesting with WinSpice.

It appears that Node 0 is always a DC ground and your AC circuit must float above Node 0 to work correctly.

To see what I mean run circuit 1 and plot nodes 3,4, 2, 0. Try the same thing with circuit 2 but plot 4,5,3,6.

Have fun.

de KI00T, Brad

Circuit 1

Full Wave Rectifier

- * voltage frequency of 60Hz
- * DC offset of 0V
- * time delay of 10mS
- * decay factor of 0.0 and phase angle of 0.0 degrees

V1 1 0 DC 0 SIN(0 1 60Hz 10mS 0.0 0.0)

RS 1 2 50

RL 5 0 50

D1 2 3 1N34A

D2 4 2 1N34A

D3 5 3 1N34A


```
D4 4 5 1N34A
* RVM 3 0 200K
```

```
.MODEL 1N34A D( bv=75 cjo=0.5e-12 eg=0.67 ibv=18e-3
+ is=2e-7 rs=7 n=1.3 vj=0.1 m=0.27 )
```

```
* Do the analysis for 100mS with 0.25mS resolution
```

```
.TRAN 0.25mS 100mS 0.0 0.25mS
```

```
.END
```

```
*#plot V(3) V(4)
```

```
-----
Circuit 2
```

Full Wave Rectifier

```
v1 2 1 dc 0 sin( 0 1 60hz)
```

```
r1 2 3 5
```

```
r2 6 1 5
```

```
d1 3 4 1N34A
```

```
d2 5 3 1N34A
```

```
d3 6 4 1N34A
```

```
d4 5 6 1N34A
```

```
r4 4 0 100meg
```

```
r5 5 0 100meg
```

```
.MODEL 1N34A D( bv=75 cjo=0.5e-12 eg=0.67 ibv=18e-3
+ is=2e-7 rs=7 n=1.3 vj=0.1 m=0.27 )
```

```
.tran .25ms 100ms 0.0 .25ms
```

```
.end
```

```
-----
Date: Thu, 11 Feb 1999 14:26:26 -0800
From: Mont Pierce <montp@synacom.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [32783] NC20 L1 toroid question
```

Message-ID: <36C35912.4E20DB73@synacom.com>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Any one know if it makes any difference if L1 is wound
clock-wise versus counter-clock-wise around the toroid?

The instructions on page 7 section 5, is very nicely
detailed except for this little tid-bit.

Thanks,
Mont

Date: Thu, 11 Feb 1999 17:39:24 -0500
From: "Ed Tanton" <n4xy@mindspring.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [32784] Offense, and the taking thereof
Message-ID: <008301be560f\$5fbf66f0\$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I was going to keep this private... but I feel I should post the reply I
made to this (attack? insult? loose-lips-sink-ships? whatever.) Printed
below is my response to Rich resulting from my "alarm" at his not-so-private
remarks... and regardless of result, it will be my first and last public
comment on it.

///snip

And for the alarmist on this list who is so worried about electrolytics
I have had an electrolytic soaking in a beaker of acetone for the last 3
hours with a meter attached, reading the capacity. It is a cheap run-of
-the-mill 470 uf @ 10 volts electrolytic and the worse thing that has
happened is that the outer plastic cover expanded and fell off. Meter
readin is 498 and counting.

73 Rich, AA9L

///

"Alarmist"? Get some serious experience Rich before using insulting terms
like that-and the truth is: I personally wouldn't advise using them at
all-they have a way of coming back to bite you... as in this case. It's your

rig, do what you like with it-but I believe I'd watch my mouth about calling names. It could be confused with a weakness of character-as opposed to ordinary carelessness.

It MIGHT be that it takes a while-and you ought to have a power supply set for something near the rated voltage, across the capacitor-not a DVM. Part of this thread mentions that flux CAN take on moisture from the air, and reach a state where it is less than ideal, resistance-wise. While I've NEVER seen this, I don't doubt or question the veracity of the guy that brought it up-much less describe him as an "alarmist". It may take YEARS of exposure to moisture for flux to reach that state. So three hours at 3 volts or so is not much of a test to throw remarks like that around.

End of comment.72 / 73 Ed N4XY email: <n4xy@mindspring.com>

Date: Thu, 11 Feb 1999 14:50:52 -0800
From: Paul Maciel <pmaciel@inow.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [32785] TCI Wireless Modems - more fun!
Message-ID: <36C35ECC.E20D50D2@inow.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

If you have a neighbor that is reluctant to get rid of the wireless modems that TCI installed have them read this article in today's San Jose Mercury.

<http://www.sjmercury.com/svtech/news/indepth/docs/phone021199.htm>

In this case, it looks like the modem was making all sorts of long distance phone calls!

---Paul AK1P San Jose, CA

Date: Thu, 11 Feb 1999 18:03:52 EST
From: SABorns@aol.com
To: elecrafft@qth.net
Cc: qrp-l@lehigh.edu
Subject: [32786] Ohio K-2 On the Air

Message-ID: <d5e455f1.36c361d8@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Wayne, Eric and the Gang,

My K-2 is up, running and on the air. Last evening I made several stateside contacts on 40 meters receiving good signal reports. Everyone reports the rig as sounding excellent. Today I worked a little 15 meters and in addition to stateside worked Spain. Many of the people I've had QSO's with are anxious to hear one on the air and several people have commented that they have orders in or are about to place one at the conclusion of the field test.

Had no real problems in assembly (only a few imagined ones) Was only short one resistor and the 39uH choke that everyone received in their care package. I started construction a few days after many others so I had the benefit of the Alerts from Wayne and Eric. Having the reflector is an excellent touch and the service is both immediate and invaluable. I just hope that Wayne and Eric are managing to save a few hours per day for sleep, nourishment, and seeing their wives. Good job fellows.

In my opinion the manual is absolutely first rate. Very easy to follow and yet concise. I don't know if this was me working too long at a session but I seemed to have had a few more incorrect parts placements than I usually do. I caught them all during inspection and only missed one one solder joint that immediately revealed itself when I couldn't get any drive on the 20 and 30 meter bands. (one lead of a coil not soldered at all). I do have one possible suggestion. When there are long list of components to install such as resistors or capacitors it might help to break the lists down to twelve or so components followed by a few blank lines. eg:

R-1	10K,	R-3	150	R-6	1K
R-7	10K,	R-8	10K	R-9	10K
R-12	220	R-13	10	R-14	4.7K

R-15 6.8K etc, etc, etc...

However this might just be a case of my tired old eyes losing track. It might also be better not to interrupt a string of .01 ufd caps with a lone .1 ufd one. Just a suggestion for what it's worth.

I thought the alignment procedure excellent and trouble free. Everything adjusted and peaked as per the manual. I ran through the procedure as per

manual and also with the aid of a scope. For those fellows without scopes don't worry! The manual procedure is just fine.

Now to get a little more time on the air to get used to all of the controls and their functions.

I should comment that the rig is very intuitive and a breeze to operate. I especially appreciate the fact that the menu items are either single push or push and hold rather than hold multi buttons simultaneously as is found on many other rigs.

I have been signing my call K8IDN/K2 and people have called me to both hear the rig and ask questions. I will try to be on 40 again tonight (if I get my chores done) +/- 7040.

73, Steve K8IDN

Date: Thu, 11 Feb 1999 17:57:35 -0500
From: Hank Kohl K8DD <k8dd@contesting.com>
To: qrp-l@lehigh.edu
Subject: [32787] Dayton Hamvention 1999 Rooms
Message-ID: <4.1.19990211175339.013afb60@192.0.0.1>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

It's time to put in for vacation for the 1999 Dayton Hamvention!
May 14, 15, 16, 1999.

Add May 13 for the FDIM QRP extravaganza
(<http://www.qrparci.org/fdim99.html>)

QRP-ARCI has a block of rooms (<http://www.tir.com/~k8dd/dids.htm>)
The rooms are \$72 per night + taxes for three nights. No extra charges for extra people in the room.

And we have rooms available. To get one of the rooms in the QRP-ARCI block at the home of the QRP Awards Banquet, the FDIM Symposium, the FDIM Vendor Social and everything that happens in QRP at Dayton, I need the following:

Name:
Callsign:
Which Nights:
Nr of Beds:
Smoking Y/N:

Home Phone:
Work Phone:
E-mail:

DO NOT CALL DAYS INN DAYTON SOUTH YET!!!! If you are not on the FAX that we send to Days Inn Dayton South, they will not confirm a room in the QRP-ARCI block of rooms.

Room confirmation information will be sent out in March 1999.

73 Hank K8DD

*/ Hank Kohl K8DD k8dd@contesting.com
*/ ARRL TS <http://www.tir.com/~k8dd>
*/ MI-QRP - Vice Pres. QRP-ARCI - Director
*/ G-QRP ARRL/LM QCWA/LM QCAO/LM

Date: Thu, 11 Feb 1999 23:35:24 +0000
From: Michael Neverdosky <MichaelN@cycat.com>
To: qrp-l mailing list <qrp-l@Lehigh.edu>
Subject: [32788] Re: Cleaning after soldering
Message-ID: <36C322EC.3632439C@cycat.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

I am going to wade into the middle of this one. :-)(

Do we need to remove flux from our boards after soldering?

It depends.

For most of the boards being made by the people here on QRP-L defluxing is not needed.
Most designers put in generous margins in the design for variable components and construction so that units built by others are more likely to work.
At HF the RF leakage through the flux is slight.
The fluxes we use don't cause any significant corrosion unless hot.

Now, if we are working with microwaves (where the flux is significant to the RF) or are making precision instruments where any leakage path is a problem then we will benefit from cleaning.

The other case where cleaning is good is for the hardcore, abuse the radio in the field, person.

In this case, clean the flux, check the alignment, conformal coat the board, recheck the alignment, and have lots of fun..... and hope you don't need to repair the board later. You can remove conformal coating and repair the board but it is a lot more work than fixing a non-coated board.

OTOH

A clean board is very pretty.

michael N6CHV (in central Florida)

ap036@detroit.freenet.org wrote:

>

> Have to agree with Dave, I've seen stuff fail due to poor soldering, cold
> soldering, defective parts, but never due to flux.
> de Steve, W8SFF

Date: Thu, 11 Feb 1999 18:36:22 EST

From: RangerSF5@aol.com

To: qrp-l@lehigh.edu

Subject: [32789] How do you work this out?

Message-ID: <9a03e4aa.36c36976@aol.com>

Mime-Version: 1.0

Content-type: text/plain; charset=US-ASCII

Content-transfer-encoding: 7bit

Content-Transfer-Encoding: 7bit

Hi Gang,

This never happened but was always on my mind(Thanks Willie)

Lets say I sold a rig on the list.

Clean,no bugs,factory new and everything works super.

I list it and get a buyer.

He even calls me for more info and I tell him it works FB.

We work out a price,he gets the rig a few day later then finds that he's getting bad audio reports or maybe it has a CW chirp or the digital readout flickers now and then.

Now what??

What is the proper way to deal with this type of problem??

What if he turned a little thingie inside the rig with the GOLDEN screw driver??

Do you tell he/she to get lost?(Not Right).

You have no control over the rig between point *A* and point *B* but at point *B*,the rig now has a problem.

So really gang.
Who buys the farm??
The buyer isn't happy and the seller says it was in excellent operating
condition.
Open for feed back on this topic.
Bob
WA2HOQrp <tm>

Date: Thu, 11 Feb 1999 20:52:45 -0000
From: "Kim Andersen" <ox3fv@greenet.gl>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [32790] Light weight paddle
Message-ID: <012901be5600\$eeea48260\$dce2b1c2@ox3fv>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
Content-Transfer-Encoding: quoted-printable

Hi
Could someone direct me to a good webside with light weight paddles. =
Need one for my small rig when trekking, so weight is a problem!!

73 de Kim/OX3FV

Kim Andersen
ARS OX3FV
Box 3
ZIP 3930 Groennedal
GREENLAND

ox3fv@greenet.gl

End of QRP-L Digest 1364

